



## *X-Plain™ Myelogram*

### Reference Summary

A myelogram is a test that helps your doctors look at the nerves and spinal cord in the spine. Doctors may recommend a myelogram if they suspect a problem with the spine. If your doctor recommends a myelogram, the decision whether or not to have this procedure is also yours. This reference summary will help you understand better the benefits and risks of this procedure.



#### Anatomy

The spine is formed of vertebrae, or small bones. The vertebrae are separated and cushioned by softer disks. This allows the spine to flex and bend.

Nerves pass from the body to the brain through the

spine. The spinal cord and nerves are surrounded by a membrane called dura. Inside the dura, the spinal cord and nerves are surrounded by clear fluid called CSF, short for 'cerebrospinal fluid.'

#### Procedure

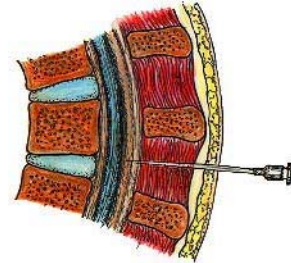
This procedure is usually done on an outpatient basis. You will be able to go home a few hours after the test.

The aim of the procedure is to put some iodine dye around the nerves. With this dye, your doctor will be able to visualize the spine and nerves more clearly through x-rays and CAT scans. CAT scan is a test that provides very clear pictures of structures inside the body. Before the back injection, the skin is disinfected and numbed with local anesthesia, so that you will not feel the pain of the iodine injection.

A minute or so later the dye is injected with a longer needle directly around the nerves. This is usually not painful, although it may be uncomfortable.

The needle is then taken out. During this part of the procedure, you should let your doctor know if you have any pain, especially in the legs. Pain may

mean the needle is touching a nerve.



After the dye is injected, X-rays are taken.

After the X-rays are completed, a CAT scan will be done to visualize better any possible problems.

You should remain flat for a few hours after the procedure to decrease the chance of CSF leaking inside the back, causing a bad headache, nausea, and vomiting.

You may not be able to drive yourself, so you should have somebody help drive you home after the test is done.

#### Risks and Complications

This procedure is very safe.

There are, however, several possible risks and complications. These are very unlikely but possible. You need to know about them just in case they happen. By being informed, you may be able to help your doctor detect complications early.

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X-rays are used during this procedure. The amount of radiation during this test is deemed safe. However, this same amount could be dangerous for unborn children.

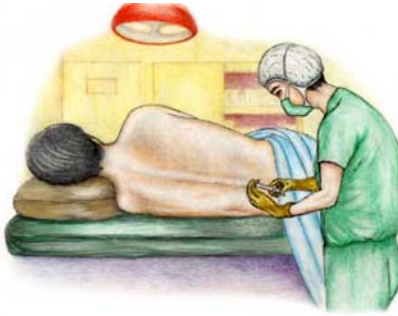
It is therefore very important to make sure you are not pregnant before an elective radiological test. A pregnancy test can be done when in doubt.

Infections are rare after a myelogram.

Some people have allergies to the iodine dye or other drugs (such as the numbing medicine) used in this test. Make sure to tell your doctor about your allergies and about any possible reactions to any sort of dye used on you in the past.

In some people, dye can cause kidney failure, especially in patients who are taking Glucophage®, a diabetic medication. Nerves could be injured during the procedure, but this is extremely rare.

Some spinal fluid is withdrawn during the procedure. This may cause some patients to develop severe headaches, nausea, and vomiting. If this happens let your doctor know. You may have to lie flat for some time and drink lots of fluid. If this does not help, some of your own blood may be used to stop the fluid leak. This very simple procedure is called 'blood patch.'



Finally, the injection may cause internal bleeding, which puts pressure on the nerves.

The chance of this happening is again extremely rare, but if you develop significant new weakness or bladder problems, you should tell your doctor.

You should inform your doctor of any medications you are taking, especially blood thinners such as Coumadin®, because these can cause you to bleed more than usual.

Seizures are rare but possible during myelography. This is more common if you are on some specific medications such as phenothiazine or Flexeril®.

You should make your doctor aware of all the medications you are taking, prescription or over-the-counter.

Worsening back pain or leg pain is very rarely caused by this procedure.

After the procedure, make sure to call your doctor in case of worsening symptoms, weakness, fever, severe headache, or any new or worrisome symptom.

#### Summary

Myelograms can be helpful in detecting problems in the spine.

A myelogram includes injecting iodine dye into the CSF around the nerves in the spine, taking x-rays, and then getting a CAT scan.

Myelograms followed by CAT scans are very safe. Risks and complications are very rare.

Knowing about them will help you detect them early if they happen.